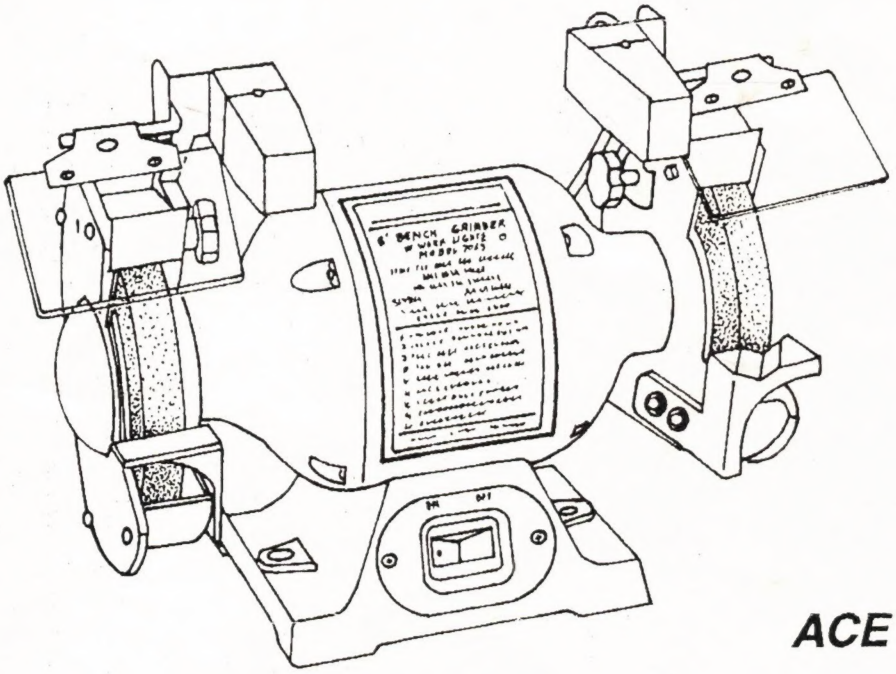
ACE® Hardware

OWNER'S MANUAL

CAUTION - FOR YOUR OWN SAFETY !!

READ YOUR OWNER'S MANUAL THROUGH COMPLETELY AND CAREFULLY BEFORE ATTEMPTING TO SET-UP OR OPERATE YOUR NEW POWER TOOL. READ AND UNDERSTAND ALL SAFETY RULES.

DUAL LIGHT
6" BENCH GRINDER



ACE 27201

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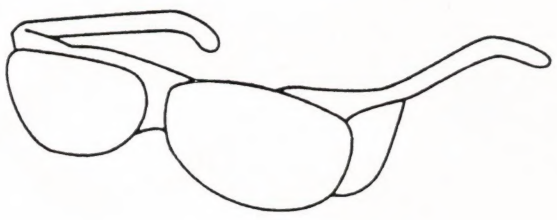
CHECK CONTENTS

YOUR BENCH GRINDER COMES WITH TWO GRINDING WHEELS AND A PACKAGE OF LOOSE PARTS WHICH INCLUDE THE FOLLOWING:

	QTY		QTY
TOOL RESTS	2	EYESHIELDS	2
LARGE BOLTS	4	BRACKETS	2
LARGE WASHERS	4	SCREWS	4
MOUNT BRACKETS	2	FLAT PLATE	2
BOLTS	6	NUTS	2
FLAT WASHERS	4	LOCKWASHERS	4

PROTECT YOUR EYES

The operation of any power tool can result in foreign objects being thrown into the eyes which can result in severe eye damage. Always wear eye protection during power tool operation. Safety eyewear is available at your local hardware or home center store.



SAFETY INSTRUCTIONS FOR BENCH GRINDER

KNOW YOUR POWER TOOL – Read the OWNERS MANUAL carefully. Learn the tool's applications and limitations, as well as the specific potential hazards peculiar to it.

WHEN INSTALLING OR MOVING THE BENCH GRINDER
Inspection – To be certain the grinding wheels have not been damaged in shipment, inspect carefully. If you suspect a wheel of being fractured, REPLACE IT IMMEDIATELY. Fractured wheels may shatter causing serious injury.

PUT BENCH GRINDER ON A FIRM LEVEL SURFACE where there is plenty of room for handling and properly supporting the workpiece. Bench grinder should be secured by using bolts and nuts on a firm, level surface.

AVOID DANGEROUS ENVIRONMENT. Use the grinder in a dry, indoor place protected from rain. Keep work area well lighted.

DISCONNECT TOOLS before servicing or when changing accessories such as grinding wheels.

PLAN AHEAD TO PROTECT YOURSELF – to avoid injury from accidental contact with moving parts.

KEEP GUARDS IN PLACE and in working order.

AVOID ACCIDENTAL STARTING. Make sure switch is in "OFF" position before plugging in.

USE THE RIGHT TOOL – Don't force tool or attachment to do a job for which it was not designed.

REDUCE THE RISK OF UNINTENTIONAL STARTING. Make sure switch is in off position before plugging in.

USE RECOMMENDED ACCESSORIES. Consult the owner's manual for recommended accessories. The use of improper accessories may cause risk of injury to persons.

NEVER STAND ON TOOL. Serious injury could occur if the tool is tipped or if the cutting is unintentionally contacted.

DRESS FOR SAFETY

WEAR PROPER APPAREL – Wear protective hair covering to contain long hair. Don't wear loose clothing or jewelry that could get caught in moving parts. Rubber soled footwear is recommended for best footing.

WEAR GLOVES when grinding workpiece. Object may become very sharp and can cause injury.

USE SAFETY GLASSES – Also use face or dust mask if grinding operation is dusty.

BEFORE EACH USE

CHECK DAMAGED PARTS – Before further use of the tool, a guard or other part that is damaged should be carefully checked to assure that it will operate properly and perform its intended function. Check for misalignment of binding of moving parts; breakage of parts, mounting, or any other conditions that may affect its operation. A guard or other part that is damaged should be properly replaced.

REMOVE ADJUSTING KEYS AND WRENCHES. Form a habit of checking to see that keys and adjusting wrenches are removed from tool area before turning it on.

MAINTAIN GRINDER WITH CARE. Keep the grinder clean for best and safest performance.

WHEN GRINDER IS RUNNING
Before using your grinder, watch the grinder while it runs. If it makes an unfamiliar noise or vibrates a lot, stop immediately. Turn the grinder off and unplug it. Do not restart until problem is corrected.

DON'T FORCE TOOL – It will do the job better and safer at the rate for which it was designed.

KEEP CHILDREN AWAY. Keep all visitors a safe distance from the bench grinder. Make sure bystanders are clear of the grinder and workpiece.

PLAN THE WAY YOU HOLD THE WORKPIECE
Avoid awkward operations and hand positions where a sudden slip could cause fingers or hand to move into grinding surface. Keep fingers a safe distance from grinding wheel.

DON'T OVERREACH. Keep proper footing and balance at all times.

DIRECTION OF FEED. Feed work into grinding wheel against the direction of rotation of wheel.

AVOID INJURY FROM JAMS, SLIPS, OR THROWN PIECES
Make sure all clamps and locks are tight and no parts have excessive play.

KEEP WORK AREA CLEAN – Cluttered areas and benches invite accidents.

If small pieces get trapped inside guard, before retrieving material:
- Turn switch "off"
- Unplug grinder
- Wait for all moving parts to stop.

BEFORE LEAVING GRINDER

NEVER LEAVE TOOL RUNNING UNATTENDED. ALWAYS TURN POWER OFF.
Don't leave tool until it comes to a complete stop.

MAKE THE WORKSHOP CHILDPROOF – Lock the shop. Disconnect master switches. Store it away from children and others not qualified to use the tool.

ADDITIONAL SAFETY RULES

1. Replace a cracked wheel immediately.
2. Always use guards and eye shields.
3. Do not over tighten wheel nut.
4. Use only flanges furnished with this grinder.
5. Adjust distance between wheel and work rest to maintain 1/16" or less separation as the diameter of the wheel decreases with use.
6. Frequently clean grinding dust from beneath the grinder.

ELECTRICAL REQUIREMENTS

CONNECTING TOOL TO POWER SOURCE OUTLET. This machine source must be grounded while in use to protect the operator from electrical shock.

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electrical current to reduce the risk of electrical shock. This tool is equipped with an electric cord having an equipment grounding conductor outlet that is properly installed and grounded in accordance with all local codes and ordinances.

Improper connection of the equipment grounding conductor can result in a risk of electric shock. The conductor with insulation having an outer surface that is green (with or without yellow stripes) is the equipment grounding conductor. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment – grounding conductor to a live terminal.

Plug power cord into a 110-120V properly grounded type outlet protected by a 14 amp time delay or Circuit Saver fuse or circuit breaker.

WARNING: Do not let your fingers touch the terminals of plug when installing or removing the plug to or from the outlet.

WARNING: If not properly grounded, this power tool can incur the potential hazard of electrical shock particularly when used in damp locations or in proximity to plumbing. If an electrical shock occurs, there is the potential of a secondary hazard such as your hands contacting the grinder tool.

This tool is intended for use on a circuit that has an outlet that looks like the one illustrated in Figure A. The tool has a grounding plug that looks like the one also shown in Figure A.

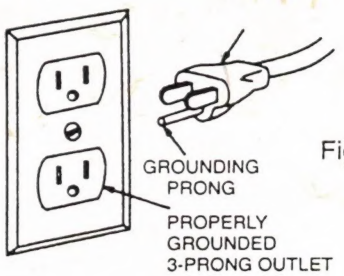


Figure A

Do not modify the plug provided if it will not fit the outlet. Have the proper outlet installed by a qualified electrician.

A temporary adapter, like the one shown in Figure B, may be used to connect this plug to two pole receptacle as shown in Figure B if a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet can be installed by a qualified electrician. The green coloured rigid ear, lug, etc., extending from the adapter, must be connected to a permanent ground such as a properly grounded outlet box.

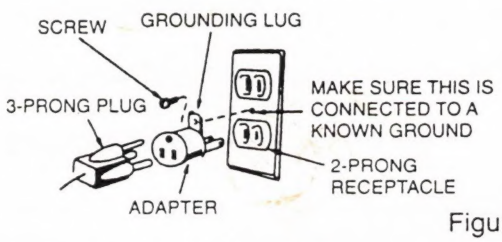


Figure B

Note: The adapter illustrated is for use only if you already have properly grounded 2 prong receptacle. If you are not sure that your outlet is properly grounded, have it checked by a qualified electrician.

EXTENSION CORDS

1. Use only 3-wire extension cords which have 3 prong grounding type plugs and 3 prong receptacles which accept the tool's plug. Replace or repair damaged or worn cord immediately.

2. Only UL Listed extension cords should be used with this product.

3. Improper use of extension cords may cause inefficient operation of your tool which can result in overheating. Be sure your extension cord is rated to allow sufficient current flow to the motor. For the proper gauge for your tool, see chart.

Minimum gage for cord [a]

		Volts	Total length of cord in feet			
Ampere Rating		120V 240V	25 ft. 50 ft.	50 ft. 100 ft.	100 ft. 200 ft.	200 ft. 300 ft.
More Than	Not More Than		AWG			
0	5		18	16	16	14
6	10		18	16	14	12
10	12		15	16	14	12
12	16		14	12	Not Recomended	

[a] only the applicable parts of the Table need to be included.For instance, a 120-volt product need not include the 240-volt heading.

BENCH GRINDER ASSEMBLY

Switch

The switch is located on the front of the grinder near the bottom. To turn the tool "ON"depress the rocker switch at the top near the word "ON."To turn the tool "OFF" depress the bottom portion of the rocker switch, near the word"OFF."

Installing Tool Rests

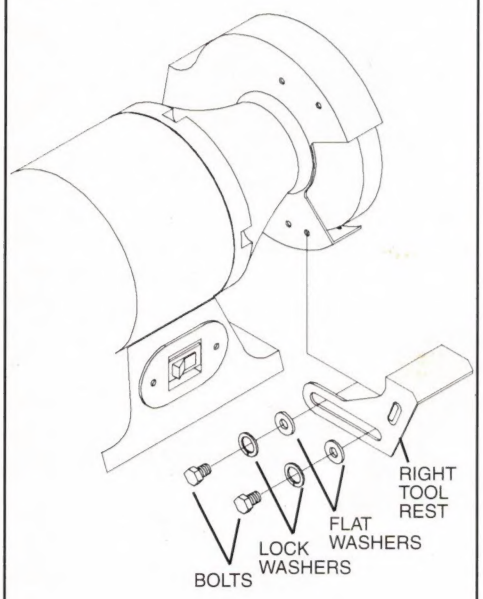
TURN OFF AND UNPLUG THE BENCH GRINDER.

Remove the tool rests from the top portion of the poly-foam carton liner and install them to the wheel guards as shown in the figure. Use the bolts and washers from the plastic bag to secure them in place, as shown in Figure 1.

NOTE: There is a left and a right tool rest. Refer to Figure 1 to ensure that you install them correctly.

When in actual use, the tool rests should be adjusted to within 1/16" of the grinding wheel or other accessory being used.

FIG. 1



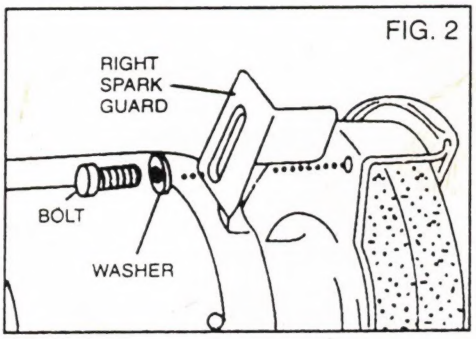
Installing the Spark Guards and Eye Shield Brackets

TURN OFF AND UNPLUG THE BENCH GRINDER

The spark guards are packed in the plastic bag shipped with your grinder.Select, from the bag, the two spark guards and the two smaller bolts and washers. Install the spark guards to the wheel guards of your grinder as shown in Figure 2.

Adjust them to within 1/16" of the grinding wheel or other accessory being used.

FIG. 2



NOTE: There is a left and right spark guard. Refer to Figure 2 to ensure that you install them correctly.

Installing The Eye Shields And Lights

TURN OFF AND UNPLUG THE BENCH GRINDER

Remove all remaining parts from the plastic bag.(There should be two paper covered eye shields, two eye shield mounting rods, two rod mounting brackets, tow locking knobs and two flat washers.)

NOTE: Lights and brackets are already wired to machine. These light brackets are mounted to same assembly as eyeshild mounting rods.

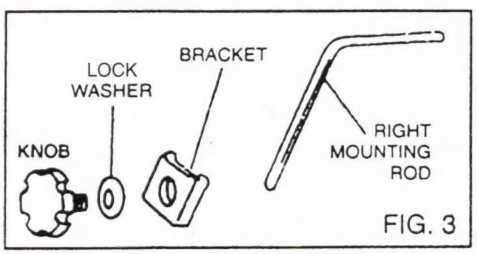


FIG. 3

Please see FIG.3 and assemble light bracket #40, Eye shield bracket #50, flat washer #51 and locking knob #52 as indicated in figure #3 to wheel guard. Next, insert eye shield mounting rod #37 in upper section of eye shield bracket.

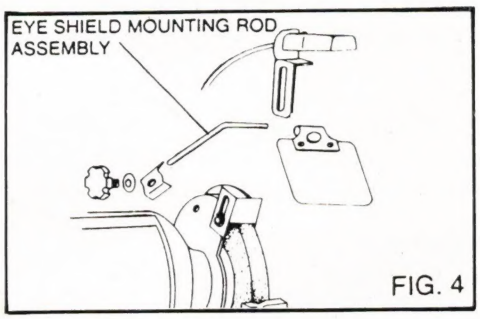


FIG. 4

NOTE: The eye shields are identical and will fit properly on either side of the grinder. However, it may be necessary to loosen the center hex nut in order to slip the shield over the mounting rod.

After you have assembled and installed each eye shield mounting rod to the grinder, attach the paper covered eye shields to the rods as shown in FIG.5. Install them in such a way that the three hex nuts on each eye shield are on the back side, away from the operator when the tool is in use.

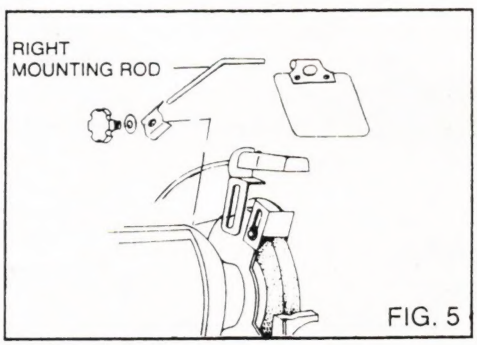


FIG. 5

Tighten the center hex nut so that the shield can be moved but will be tight enough to stay in place.

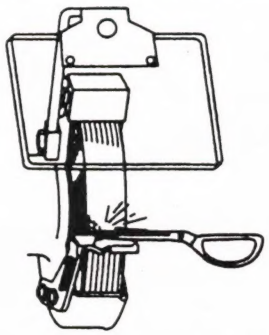
Adjust eye shield and lights/brackets. Lights should be horizontal and slightly above eye shield when in grinding position. Tighten locking knob #53. Repeat these steps for opposite side.

OPERATION

ALWAYS WEAR EYE PROTECTION WHEN USING THE GRINDER.

Keep a steady moderate pressure on the workpiece and keep it moving at an even pace for smooth grinding. Pressing too hard overheats the motor and prematurely wears down the grinding wheels, so take your time. Note the original bevel angle on the item to be sharpened and try to maintain this shape. The grinding wheel should rotate into the object being sharpened. Keep a tray filled with water and dip your work into it regularly to prevent overheating. Overheating can weaken metals.

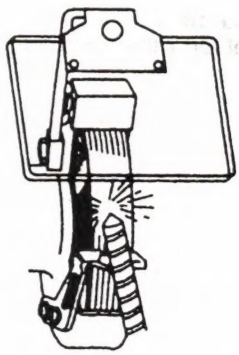
SCISSORS
If possible, take the scissors apart to make the sharpening operation easier and safer. Remove material only from the outside surface and work from the heavy end of the blade toward the tip.



KNIVES
Remove metal from both faces of most knives, working from the heavy end of the blade toward the tip.

SCREWDRIVERS
The end of a properly sharpened screwdriver will be a perfect rectangle, absolutely flat and perpendicular to the center line of the shank. The two sides and two faces will taper outward from the edge of the shoulder or shank. They should be flat with intersecting faces perpendicular. Hold each face of the screwdriver against the wheel to true it up, then ease the end straight into the stone to grind it true.

TWIST DRILL BITS
Drill bits are best sharpened on a sharpening jig, available at most hardware stores, but can be "dressed up" on your bench grinder. Begin on one side of the point at the existing angle, then twist the bit while maintaining a constant angle with grinding surface. Sharpen only the tip. This technique requires considerable practice, so take your time and make a few "dry runs" first with the grinder off. Be sure to maintain the original cutting edge angle as this is important to the efficiency of your bits. One tool rest has a V-groove that is correctly angled for most drill bits.



LAWN MOWER BLADES
Lawn mower blades are usually sharpened on only one side and dressed up slightly on the other. After sharpening, be sure to balance the blade by removing additional material from the heavy end. There are a number of inexpensive cono balances on the market for this purpose. Unbalanced blades can cause serious crank shaft damage to your lawn mower. Always remove spark plug wires from the mower before servicing the blades to prevent accidental starting.

MAINTENANCE

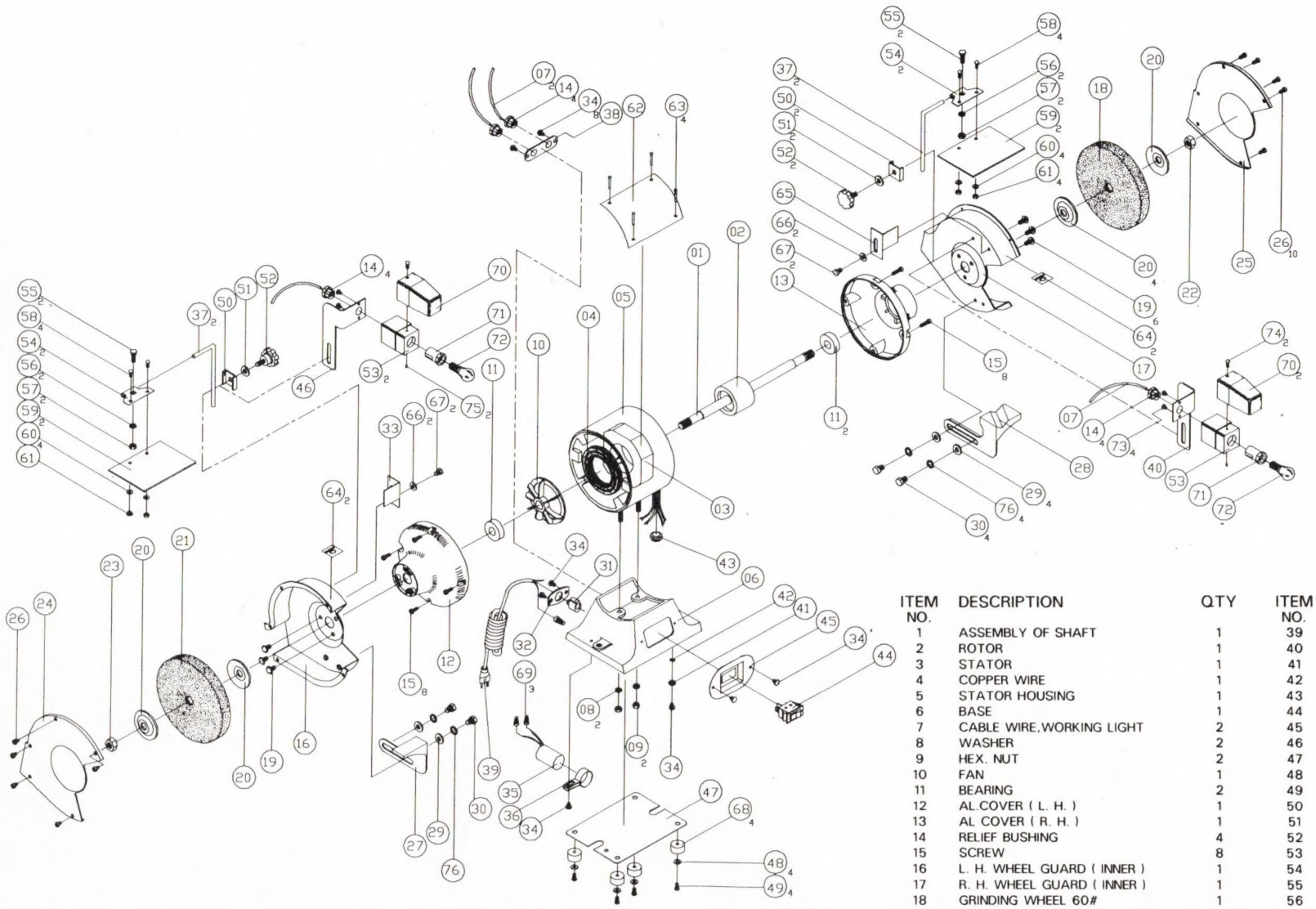
WARNING: For your own safety, turn switch "OFF" and remove plug from power source outlet before adjusting and maintaining your bench grinder. If power cord is worn, cut, or damaged in any way, have it replaced immediately.

CARE OF GRINDING WHEELS
In normal use, grinding wheels may become cracked, grooved, rounded at the edges, chipped, out of true or loaded with foreign material. Cracked wheels should be replaced IMMEDIATELY. While any of the other conditions can be remedied with a dressing tool (available at most hardware stores), new wheels sometimes require dressing to make them round.

WHEEL REPLACEMENT
If you must replace a wheel be sure to obtain one with a safe rated speed at least as high as the 'NO LOAD' RPM marked on your grinder's nameplate and with a 5/8" center hole. 8" diameter wheel should be a maximum of 1" wide. Test new wheels for cracks and maintain the existing sequence of retaining hardware. Be sure the tool is unplugged before attempting repairs.

Your bench grinder will accept most polishing and buffing wheels available at dealers and hardware stores.

WARNING:
The use of any other accessories is not recommended and may result in serious injury.



BENCH GRINDER
MODEL 6"#7065
PARTS LIST

ITEM NO.	DESCRIPTION	QTY
1	ASSEMBLY OF SHAFT	1
2	ROTOR	1
3	STATOR	1
4	COPPER WIRE	1
5	STATOR HOUSING	1
6	BASE	1
7	CABLE WIRE,WORKING LIGHT	2
8	WASHER	2
9	HEX. NUT	2
10	FAN	1
11	BEARING	2
12	AL.COVER (L. H.)	1
13	AL COVER (R. H.)	1
14	RELIEF BUSHING	4
15	SCREW	8
16	L. H. WHEEL GUARD (INNER)	1
17	R. H. WHEEL GUARD (INNER)	1
18	GRINDING WHEEL 60#	1
19	SCREW	6
20	WHEEL WASHER	4
21	GRINDING WHEEL 36#	1
22	R. H. NUT	1
23	L. H. NUT	1
24	L. H. WHEEL GUARD (OUTTER)	1
25	R. H. WHEEL GUARD (OUTTER)	1
26	SCREW	10
27	L. H. TOOL REST	1
28	R. H. TOOL REST	1
29	WASHER	4
30	HEX. SCREW	4
31	RUBBER GUIDE	1
32	RUBBER GUIDE PLATE	1
33	EYE SHIELD FIXER (L H)	1
34	SCREW	2
35	CONDENSER	1
36	CONDENSER FIXER	1
37	EYE SHIELD ARMS	2
38	PLATE	1
39	CORD & PLUG	1
40	MOUNT BRACKET, LIGHT COVER (R H)	1
41	TOOTHED WASHER	1
42	CLIP	1
43	RELIEF BUSHING	1
44	SWITCH	1
45	SWITCH PLATE	1
46	MOUNT BRACKET, LIGHT COVER (L H)	2
47	BASE PLATE	1
48	WASHER	4
49	SCREW	4
50	EYE SHIELD BRACKET	2
51	LOCK WASHER	2
52	KNOB	2
53	LIGHT HOLDER HOUSING	2
54	EYE-SHIELD FIXTURE	2
55	CAR. BOLT	2
56	WASHER	2
57	HEX. NUT	2
58	SCREW	4
59	EYE-SHIELD	2
60	WASHER	4
61	HEX. NUT	4
62	NAME PLATE	1
63	RIVET	4
64	ROTATION GUIDE	2
65	EYE-SHIELD FIXER (R H)	1
66	WASHER	2
67	HEX. SCREW	2
68	RUBBER FOOT	4
69	CONNECTOR AO	3
70	LIGHT COVER	2
71	LIGHT HOLDER	2
72	LIGHT BALL (10 W)	2
73	SCREW, LIGHT MOUNT BRACKET	4
74	SCREW, LIGHT COVER	4
75	SCREW,HEADLESS	
76	LOCK WASHER	4